

IN THE SPECIFICATION:

NE On page 142, line 29, please insert --63 immediately after ":".

NE On page 143, line 6, please insert --64-- immediately after ":".

IN THE CLAIMS:

Please amend the claims as follows:

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124. (Twice Amended) A method for modifying the body weight of a mammal comprising administering to the mammal a vector comprising a nucleic acid molecule encoding an OB polypeptide [to the mammal] under conditions that provide for expression of the OB polypeptide *in vivo*, such OB polypeptide capable of modulating body weight and selected from the group consisting of:

- E1*
- a) the amino acid sequence set out in SEQ ID NO: 2;
 - b) the amino acid sequence set out in amino acids 22-167 of SEQ. ID. NO: 2;
 - c) the amino acid sequence set out in SEQ ID NO: 4; and
 - d) the amino acid sequence set out in amino acids 22-167 of SEQ. ID. NO: 4; and
 - e) variants, including allelic variants, [muteins,] analogs and fragments of any of subparts (a) through (d), capable of modulating body weight.

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132. (Amended) A method [according to claim 124] for modifying the body weight of a mammal comprising administering to the mammal a vector comprising a nucleic acid molecule encoding a OB polypeptide variant under conditions that provide for expression of the OB variant polypeptide *in vivo*, such OB polypeptide variant capable of modulating body weight and selected from the group consisting of [the amino acid sequence set forth in]:

- a) the amino acid sequence set out in SEQ ID NO: 5;
- b) the amino acid sequence set out in amino acids 22-166 of SEQ ID NO: 5;

- c) the amino acid sequence set out in SEQ ID NO: 6; and
d) the amino acid sequence set out in amino acids 22-166 of SEQ ID NO:

6.

133. (Amended) A method for modifying the body weight of a mammal comprising administering to the mammal a vector comprising a nucleic acid molecule encoding an OB polypeptide under conditions that provide for expression of the OB polypeptide *in vivo*, such OB polypeptide capable of modulating body weight [according to claim 124] wherein such [said] OB polypeptide has 83 percent or more [greater] amino acid sequence identity [homology] to the OB polypeptide amino acid sequence set out in SEQ ID NOS: 2, 4, 5 or 6.

134. (Amended) A method for modifying the body weight of a mammal comprising administering to the mammal a vector comprising a nucleic acid molecule encoding a variant of an OB polypeptide under conditions that provide for expression of the OB polypeptide *in vivo*, such OB polypeptide capable of modulating body weight [according to claim 124] and comprising amino acids 22-167 of SEQ ID NO:4 wherein [said OB polypeptide has] one or more amino acids selected from the group consisting of amino acids 53, 56, 71, 85, 89, 92, 95, 98, 110, 118, 121, 122, 126, 127, 128, 129, 132, 139, 157, 159, 163 and 166[, according to the numbering of SEQ ID NO: 4,] is substituted with another amino acid.

135. (Amended) A method for modifying the body weight of a mammal comprising administering to the mammal a vector comprising a nucleic acid molecule encoding a variant of an OB polypeptide under conditions that provide for expression of the OB polypeptide *in vivo*, such OB polypeptide capable of modulating body weight [according to claim 132] and comprising amino acids 22-167 of SEQ ID NO:6 wherein [said OB polypeptide has] one or more [of] amino acids selected from the group consisting of amino acids 52, 55, 70, 84, 88, 91, 94, 97, 109, 117, 120, 121, 125, 126, 127, 128, 131, 138, 156, 158, 162 and 165[, according to the numbering of SEQ ID NO: 6,] is substituted with another amino acid.

138. (Amended) A method of delivering DNA encoding a[n] mammalian OB polypeptide capable of modulating body weight to a mammal comprising administering to said mammal a vector which comprises such OB encoding DNA operatively associated with an expression control sequence, under conditions that provide for expression of the mammalian OB polypeptide by the mammal.

139. (Amended) A method according to claim 138 wherein said OB polypeptide is selected from the group consisting of:

- F3
- a) the amino acid sequence set out in SEQ ID NO: 2;
 - b) the amino acid sequence set out in amino acids 22-167 of SEQ. ID. NO: 2;
 - c) the amino acid sequence set out in SEQ ID NO: 4;
 - d) the amino acid sequence set out in amino acids 22-167 of SEQ. ID. NO: 4; and
 - e) variants, including allelic variants, [muteins,] analogs and fragments of any of subparts (a) through (d), capable of modulating body weight.

140. (Amended) A method according to claim 138[9] wherein said mammalian OB polypeptide [variant] is a variant selected from the group consisting of the amino acid sequence set forth in:

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- a) SEQ ID NO: 5;
- b) amino acids 22-166 of SEQ ID NO: 5;
- c) SEQ ID NO: 6; and
- d) amino acids 22-166 of SEQ ID NO: 6.

141. (Amended) A method of delivering DNA encoding an OB polypeptide capable of modulating body weight to a mammal comprising administering to said mammal a vector which comprises such OB encoding DNA operatively associated with an expression control

sequence, under conditions that provide for expression of the OB polypeptide by the mammal, [according to claim 138] wherein said OB polypeptide has 83 percent or greater amino acid sequence identity [homology] to the OB polypeptide amino acid sequence set out in SEQ ID NOS: 2, 4, 5 or 6.

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142. (Amended) A method of delivering DNA encoding an OB polypeptide capable of modulating body weight to a mammal comprising administering to said mammal a vector which comprises such OB encoding DNA operatively associated with an expression control sequence, under conditions that provide for expression of the OB polypeptide by the mammal [according to claim 139] wherein said OB polypeptide comprises amino acids 22-167 of SEQ ID NO:4 wherein [has]one or more amino acids selected from the group consisting of amino acids 53, 56, 71, 85, 89, 92, 95,98, 110, 118, 121, 122, 126, 127, 128, 129, 132, 139, 157, 159, 163 and 166[, according to the numbering of SEQ ID NO: 4,] is substituted with another amino acid.

143. (Amended) A method of delivering DNA encoding an OB polypeptide capable of modulating body weight to a mammal comprising administering to said mammal a vector which comprises such OB encoding DNA operatively associated with an expression control sequence, under conditions that provide for expression of the OB polypeptide by the mammal [according to claim 140] wherein said OB polypeptide comprises amino acids 22-167 of SEQ ID NO:6 wherein [has] one or more [of] amino acids selected from the group consisting of amino acids 52, 55, 70, 84, 88, 91, 94, 97, 109, 117, 120, 121, 125, 126, 127, 128, 131, 138, 156, 158, 162 and 165[, according to the numbering of SEQ ID NO: 6,]is substituted with another amino acid.

144. (Amended) A method of expressing a[n] mammalian OB polypeptide in a mammal comprising administering to said mammal a DNA vector which vector comprises DNA encoding a[n] mammalian OB polypeptide capable of modulating body weight operatively associated with an expression control sequence.

145. (Amended) A method according to claim 144 wherein said OB polypeptide is selected from the group consisting of:

- a) the amino acid sequence set out in SEQ ID NO: 2;
- b) the amino acid sequence set out in amino acids 22-167 of SEQ. ID. NO: 2;
- c) the amino acid sequence set out in SEQ ID NO: 4;
- d) the amino acid sequence set out in amino acids 22-167 of SEQ. ID. NO: 4; and
- e) variants, including allelic variants, [muteins,] analogs and fragments of any of subparts (a) through (d), capable of modulating body weight.

146. (Amended) A method according to claim 144[5] wherein said mammalian OB polypeptide [variant] is a variant selected from the group consisting of the amino acid sequence set forth in:

- a) SEQ ID NO: 5;
- b) amino acids 22-166 of SEQ ID NO: 5;
- c) SEQ ID NO: 6; and
- d) amino acids 22-166 of SEQ ID NO: 6.

147. (Amended) A method of expressing an OB polypeptide in a mammal comprising administering to said mammal a DNA vector which vector comprises DNA encoding an OB polypeptide capable of modulating body weight operatively associated with an expression control sequence [according to claim 144] wherein said OB polypeptide has 83 percent or greater amino acid sequence identity [homology] to the OB polypeptide amino acid sequence set out in SEQ ID NOS: 2, 4, 5 or 6.

148. (Amended) A method of expressing an OB polypeptide in a mammal comprising administering to said mammal a DNA vector which vector comprises DNA encoding an OB polypeptide capable of modulating body weight operatively associated with an

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expression control sequence [according to claim 145] wherein said OB polypeptide comprises amino acids 22-167 of SEQ ID NO:4 wherein [has] one or more amino acids selected from the group consisting of amino acids 53, 56, 71, 85, 89, 92, 95,98, 110, 118, 121, 122, 126, 127, 128, 129, 132, 139, 157, 159, 163 and 166[, according to the numbering of SEQ ID NO: 4,]is substituted with another amino acid.

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149. (Amended) A method of expressing an OB polypeptide in a mammal comprising administering to said mammal a DNA vector which vector comprises DNA encoding an OB polypeptide capable of modulating body weight operatively associated with an expression control sequence [according to claim 146] wherein said OB polypeptide comprises amino acids 22-167 of SEQ ID NO:6 wherein [has] one or more [of] amino acids selected from the group consisting of amino acids 52, 55, 70, 84, 88, 91, 94, 97, 109, 117, 120, 121, 125, 126, 127, 128, 131, 138, 156, 158, 162 and 165[, according to the numbering of SEQ ID NO: 6,] is substituted with another amino acid.

154. (Amended) A method of expressing a[n] mammalian OB polypeptide in a mammal comprising administering to said mammal a mammalian cell comprising an expression vector which vector comprises DNA encoding a[n] mammalian OB polypeptide capable of modulating body weight operatively associated with an expression control sequence, under conditions that provide for expression of the mammalian OB polypeptide by the mammal.

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155. (Amended) A method according to claim 154 wherein said OB polypeptide is selected from the group consisting of:

- a) the amino acid sequence set out in SEQ ID NO: 2;
- b) the amino acid sequence set out in amino acids 22-167 of SEQ. ID. NO: 2;
- c) the amino acid sequence set out in SEQ ID NO: 4;
- d) the amino acid sequence set out in amino acids 22-167 of SEQ. ID. NO:

4; and

- e) variants, including allelic variants, [muteins,] analogs and fragments of any of subparts (a) through (d), capable of modulating body weight.

156. (Amended) A method according to claim 154[5] wherein said mammalian OB polypeptide [variant] is a variant selected from the group consisting of the amino acid sequence set forth in:

- a) SEQ ID NO: 5;
b) amino acids 22-166 of SEQ ID NO: 5;
c) SEQ ID NO: 6; and
d) amino acids 22-166 of SEQ ID NO: 6.

157. (Amended) A method of expressing an OB polypeptide in a mammal comprising administering to said mammal a mammalian cell comprising an expression vector which vector comprises DNA encoding an OB polypeptide capable of modulating body weight operatively associated with an expression control sequence, under conditions that provide for expression of the OB polypeptide by the mammal [according to claim 154] wherein said OB polypeptide has 83 percent or greater amino acid sequence identity [homology] to the OB polypeptide amino acid sequence set out in SEQ ID NOS: 2, 4, 5 or 6.

158. (Amended) A method of expressing an OB polypeptide in a mammal comprising administering to said mammal a mammalian cell comprising an expression vector which vector comprises DNA encoding an OB polypeptide capable of modulating body weight operatively associated with an expression control sequence, under conditions that provide for expression of the OB polypeptide by the mammal [according to claim 155] wherein said OB polypeptide comprises amino acids 22-167 of SEQ ID NO:4 wherein [has] one or more amino acids selected from the group consisting of amino acids 53, 56, 71, 85, 89, 92, 95,98, 110, 118, 121, 122, 126, 127, 128, 129, 132, 139, 157, 159, 163 and 166[, according to the numbering of SEQ ID NO: 4,] is substituted with another amino acid.

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159. (Amended) A method of expressing an OB polypeptide in a mammal comprising administering to said mammal a mammalian cell comprising an expression vector which vector comprises DNA encoding an OB polypeptide capable of modulating body weight operatively associated with an expression control sequence, under conditions that provide for expression of the OB polypeptide by the mammal [according to claim 156] wherein said OB polypeptide comprises amino acids 22-167 of SEQ ID NO:6 wherein [has] one or more of amino acids selected from the group consisting of amino acids 52, 55, 70, 84, 88, 91, 94, 97, 109, 117, 120, 121, 125, 126, 127, 128, 131, 138, 156, 158, 162 and 165[, according to the numbering of SEQ ID NO: 6,] is substituted with another amino acid.

Please add the following Claims:

--163. A method for modifying the body weight of a mammal comprising administering to the mammal a vector comprising a nucleic acid molecule encoding a mammalian OB polypeptide under conditions that provide for expression of the OB polypeptide *in vivo*, such OB polypeptide capable of modulating body weight.

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164. A method for modifying the body weight of a mammal comprising administering to the mammal a vector comprising a nucleic acid molecule encoding an OB polypeptide capable of modulating body weight under conditions that provide for expression of the OB polypeptide *in vivo*, such nucleic acid molecule being selected from the group consisting of:

- a) a nucleic acid molecule encoding the amino acid sequence set out in SEQ ID NO: 2;
- b) a nucleic acid molecule encoding the amino acid sequence set out in amino acids 22-167 of SEQ ID NO: 2;
- c) a nucleic acid molecule encoding the amino acid sequence set out in SEQ ID NO: 4;
- d) a nucleic acid molecule encoding the amino acid sequence set out in